

**B.D.H.**

**SEX HORMONE  
PREPARATIONS**

*and their application  
in Clinical Practice*

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# **B.D.H.**

## **SEX HORMONE PREPARATIONS**

### *in Clinical Practice*

This booklet is presented with the object of enabling the physician who has had little opportunity of studying the literature during recent years to familiarise himself with some of the more significant developments in hormone treatment during the last few years and to give a brief summary of some of the most important recent advances in hormone therapy in its application to general practice.

A summary of the packings, indications and dosage of the B.D.H. Sex Hormone Preparations is given, but literature on individual preparations giving further details is available on request.

### **THE GONADOTROPINS**

It is generally thought that the anterior lobe of the pituitary gland secretes two principal gonad-stimulating hormones although this point has not yet been conclusively established. It is agreed, however, that the pituitary secretes a factor (or factors) having two gonadotropic actions and that these actions are exerted in some degree by a gonadotropin from the serum of pregnant mares and a second from the urine of pregnant women respectively.

The B.D.H. gonadotropins are Serogan and Gonan.

### ***SEROGAN (Serum Gonadotropin)***

In the female, Serogan stimulates the ovarian follicles causing a considerable increase in weight of immature, or hypoplastic, ovaries, with a consequent increase in the secretion of oestrogenic hormone and genital growth. It is indicated for use, therefore, in such conditions as amenorrhœa and uterine hypoplasia.

In the male, the action of Serogan is also upon the germinal system; its administration is indicated, therefore, in cases of sterility and defective spermatogenesis. In such conditions the



collateral administration of Phytoferol Capsules (Vitamin E Capsules B.D.H.) has been recommended.

Stimulation therapy with Serogan, rather than direct replacement therapy by means of Oestroform, is used in the female for cases in which the degree of under-activity is not marked and a stimulus to the natural secretion of follicular hormone by the ovary is required. When a marked degree of hypoplasia is present, preliminary treatment with the natural oestrogenic hormone Oestroform is recommended in order to produce a rapid correction of the condition.

### **GONAN (*Chorionic Gonadotropin*)**

Gonan is the gonad-stimulating hormone isolated from pregnancy urine; it is probably of placental origin, and, physiologically, it closely resembles the luteinising factor of the gonad-stimulating hormone of the anterior lobe of the pituitary body.

In the female, Gonan stimulates the formation of corpora lutea. In the male, it produces marked hypertrophy of the interstitial tissue of the testes, leading to active secretion of the male sex hormone, to increase in size of the genitalia, if hypogenitalism is present, and to the appearance of the secondary sex characteristics in cases of retarded puberty.

The clinical indications for Gonan are therefore certain cases of menorrhagia, habitual abortion and dysmenorrhœa in the female. In the male it is used principally in cryptorchidism; the optimum age at which to begin treatment is usually regarded as nine years, while it is not desirable to postpone treatment later than the age of thirteen owing to the possibility of atrophy occurring in the retained testes. Primary eunuchoidism and Frölich's syndrome are also indications for the use of Gonan in the male.

## **THE OESTROGENS**

### **OESTROFORM (*Ovarian Oestrogenic Hormone*)**

Oestroform is the name given to preparations of the pure natural oestrogenic hormones issued in various forms for use in the treatment of conditions associated with ovarian follicular hypofunction. For injection a solution of an ester standardised in terms of international benzoate units is employed. The advantage of using an ester is that it hydrolyses slowly in the body; thus a given dose will produce a sustained action over a considerable period. For oral administration Oestroform is issued as the free hormone in tablets standardised in international units. When administered



orally, the activity is only about one sixth of that of the same dose given by intramuscular injection, but the oral route is of practical value because it provides for more continuous action of the hormones than when injections are employed alone. Further, Oestroform is prepared for vaginal administration in the form of the free hormone in pessaries also standardised in international units.

Oestroform generally is given parenterally. This ensures precise dosage and the close supervision of the physician. Supplementary treatment may be given by means of tablets (oral) and pessaries for their local effect on the vaginal mucosa. Oestroform ointment is also available and may be used for its local effect on the vulva and mammæ in pruritus and in mammary hypoplasia.

In order to determine the indications for the use of Oestroform in practice, therefore, it is necessary to consider only the physiological action of the internal secretion of the ovarian follicle in the female, for its administration is indicated whenever there is evidence of defective secretion of this hormone. This action may be summarised as follows :

1. The generalised action on the female organism of the natural œstrogenic hormone in the circulating blood has led to the use of Oestroform in the correction of delayed puberty in youth, and in the treatment of the natural climacteric and artificial menopause in later life.
2. The trophic action on the epithelial lining of the reproductive tract is employed in the treatment of pruritus vulvæ, also in senile vaginitis and kraurosis vulvæ in adults, and vulvovaginitis in infants.
3. The action on the endometrium is employed in the treatment of amenorrhœa.
4. The stimulant action upon the internal reproductive system corrects uterine hypoplasia and, consequently, dysmenorrhœa or sterility associated with this.
5. The excitatory action on uterine muscular effort is of value in the induction of labour and the treatment of uterine inertia, also in promoting evacuation of the uterus in the condition of missed abortion.
6. The inhibitory action on the lactogenic hormone of the anterior pituitary causes cessation of lactation when this is desired. The inhibitory effect of the œstrogenic hormone upon the secretion of growth hormone by the anterior pituitary is utilised in the treatment of endocrine or menopausal arthritis.

These constitute the established indications for œstrogenic hormone therapy by the use of Oestroform, and a response is always to be



obtained even in the most extreme and resistant cases although, as Jeffcoate (*Brit. Med. Journ.*, Sept. 30, 1939, p. 671) has pointed out, the results of hormone treatment will be disappointing 'unless the condition in question is associated with puberty, the menopause, or some endocrine disturbance in which the diagnosis of a deficiency of oestrogenic hormone can reasonably be established.'

Oestroform is indicated, therefore, in all cases of ovarian hypofunction throughout the period between menarche and menopause and during the climacteric.

### **STILBŒSTROL B.D.H.**

Stilbœstrol (4 : 4'-dihydroxy -  $\alpha$  :  $\beta$  - diethylstilbene) was first described by Dodds, Golberg, Lawson and Robinson (*Nature*, 1938, 141, 247) and it was found by Dodds, Lawson and Noble (*Lancet*, June 18, 1938, p. 1389) to compare favourably with the natural oestrogens in its biological properties and to be highly active by the oral route.

It possesses the considerable advantage of being more active by mouth than the natural oestrogenic hormone ; in consequence, all the usual indications for follicular hormone therapy are found to respond to the oral administration of stilbœstrol, and injections are usually unnecessary. Furthermore, stilbœstrol treatment is considerably less costly than treatment with the natural hormone.

Winterton and MacGregor state (*Brit. Med. Journ.*, Jan. 7, 1939, p.10) that their results 'indicate that the synthetic substance stilbœstrol is as effective as the naturally occurring oestrogens in the treatment of pathological conditions in human patients.'

Thus stilbœstrol produces precisely similar effects to those produced by the natural follicular hormone, and the indications for the use of stilbœstrol therapeutically are those for which the natural hormone has been employed hitherto.

Stilbœstrol B.D.H. has been found to be particularly useful for the inhibition of lactation, and is especially valuable in various conditions if the patient objects to periodical injections.

Stilbœstrol has been recommended especially for the treatment of prostatic carcinoma. Results have been remarkably encouraging, and, in some ways, the treatment is probably better than orchidectomy in that it controls androgen secretion by the suprarenal cortex whereas orchidectomy does not (*Brit. Journ. Urol.*, June 1944, p. 72).

Stilbœstrol-D.P. (Stilbœstrol Dipropionate B.D.H.) and Hexœstrol B.D.H. are available for use by those physicians who prefer these preparations as being perhaps somewhat less toxic than stilbœstrol itself.



## **DIENŒSTROL B.D.H.**

Dienœstrol B.D.H. (3 : 4-di-(*p*-hydroxyphenyl)-2 : 4-hexadiene) is another synthetic œstrogen, with the advantage that it is almost completely free from the toxic symptoms which sometimes arise from administration of stilbœstrol, as characterised by nausea and vomiting. The indications for Dienœstrol B.D.H. are essentially those for stilbœstrol and more especially when large doses are necessary as in prostatic carcinoma.

The synthetic œstrogens have been suggested for the treatment of mammary carcinoma. Results are inconclusive, however, and their use in this form of cancer seems to be somewhat incompatible with the theories of the causation of mammary carcinoma and with the reported beneficial effects of treatment with testosterone (*Brit. Med. Journ.*, Sept. 23, 1944, p. 393 and *Journ. Clin. Endocrinol.*, May-June 1945, p. 242).

## **THE PROGESTOGENS**

### **PROGESTIN B.D.H. (*Corpus Luteum Hormone*)**

The functions of progestin are to produce a progestational endometrium and to inhibit the responsiveness of the myometrium to oxytocic principle of the posterior lobe of the pituitary gland as well as its spontaneous contractility. Progestin, therefore, is essential for the retention both of the fertilised ovum and of the developing foetus.

The premature withdrawal of progestin in pregnancy may cause the uterine muscle once more to respond to the posterior pituitary stimulus, but should the deficiency be of long standing the secretory phase of the endometrium may be incomplete and nidation of the ovum impossible ; thus a deficiency of secretion of progestin may be responsible for sterility, or, in somewhat less severe cases, for habitual abortion. Treatment of such cases of abortion with progestin during the critical period should serve to preserve the decidua and to inhibit the motility of the uterine muscle, thus maintaining pregnancy.

If, in the course of the menstrual cycle, the production of a functional corpus luteum after ovulation is inhibited, the endometrium remains under the continued influence of œstrogenic hormone. It is liable, in such circumstances, to disintegrate prematurely and at irregular intervals or to develop into a state of glandular cystic hyperplasia.



Progestin B.D.H. should be employed, therefore, for the treatment of habitual and threatened abortion, spastic dysmenorrhœa, menorrhagia, tonic uterine contraction and for the relief of 'after-pains.'

### **ETHISTERONE B.D.H.**

Ethisterone is the name approved by the General Medical Council for pregneninolone, also known as anhydro-hydroxy-progesterone. Ethisterone (ethinyl derivative of a keto-steroid) has also been called ethinyl-testosterone, a name which, unfortunately, may give rise to the mistaken impression that ethisterone has definite androgenic properties.

Ethisterone by oral administration gives the progestational effect of progestin together with its ability to diminish uterine motility and contractility, although the effects of ethisterone administration may be somewhat more delayed in onset.

## **THE ANDROGENS**

### **TESTOSTERONE PROPIONATE B.D.H.**

Testosterone is the principal testicular hormone. It possesses all the androgenic properties of the internal secretion of the testes, and has a much greater masculinising effect than the other testicular hormone, androsterone.

Testosterone Propionate B.D.H. is employed to promote normal genital growth and sexual activity in the male. It promotes growth of genitalia and development of the secondary sex characteristics is rapidly stimulated, muscle tone is improved and abnormal fat deposits tend to disappear. Impotence due to loss of libido is overcome in postpuberal cases of testicular deficiency and satisfactory coitus followed by ejaculation and detumescence can usually be performed by those who were formerly impotent.

Although there is no definite period, as in the female, when sexual function is lost abruptly, nevertheless waning of sexual activity associated with fatigue and loss of vitality does take place with advancing years, and a condition has been described as occurring in some males to which the term male climacteric has been applied. According to Werner the climacteric symptoms in men may be classified as nervous, circulatory and general; among the more prominent he records '*intense subjective nervousness, depression, definite emotional instability, characterised by irritability,*



sudden changes in mood, decreased memory and ability for mental concentration, decreased interest in the usual activities and a desire to be left alone . . . and depression and crying.' Hot flushes, as in the female, may or may not be present.

In benign prostatic hypertrophy clinical reports indicate that it is not possible to promote retrogression by the administration of the male hormone when once enlargement has occurred; on the other hand, Cary (*Med. Press & Circ.*, April 19, 1939, p. 393) has shown that testosterone propionate is of value when given in the early stages of this condition; further, he claims that administration is indicated also in inoperable cases.

Testosterone Propionate B.D.H. has certain limited uses in the female. Although it has been found possible to produce relief in both menorrhagia and metrorrhagia, the present clinical view is that it is preferable to treat the former condition by the appropriate physiological hormone, the hormone of the corpus luteum (Progestin B.D.H.), and to reserve testosterone for the treatment of otherwise intractable cases of irregular uterine bleeding.

The potent effect of testosterone in relieving the pain of mastodynia has been confirmed by numerous observers, and Foss (*Lancet*, April 30, 1938, p. 992) has suggested that as administration of testosterone propionate in the female is associated with decrease in size of the breasts it may have a useful application for macromastia of endocrine origin. The dose of Testosterone Propionate B.D.H. employed in the treatment of chronic mastitis and mastodynia is so small as not to involve any danger of causing temporary cessation of the menstrual function.

### **METHYL-TESTOSTERONE B.D.H.**

It has not so far been possible to produce an entirely synthetic substance with androgenic properties which is active orally, analogous to stilboestrol and dieneestrol, the synthetic substances corresponding to the natural oestrogenic hormone. However, methyl-testosterone has a marked androgenic effect, and by its oral administration satisfactory androgenic hormone therapy is now possible. Methyl-testosterone is able to reproduce, when given by mouth alone, all the effects that are produced by the injection of testosterone propionate (Dodds, *Practitioner*, April 1942, p. 193).

Methyl-testosterone B.D.H. may be employed alone in certain of the less severe conditions of androgen deficiency but its principal use is for supplementing the effects of testosterone propionate.



# INDICATIONS, DOSAGE AND PACKINGS OF B.D.H. SEX HORMONE PREPARATIONS

| PREPARATION AND PACKINGS                                                                                                                                | INDICATIONS                             | DOSAGE                                                                                                                         |                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                         |                                         | PRIMARY TREATMENT                                                                                                              | SUPPLEMENTARY OR ALTERNATIVE TREATMENT                                                                                                       |
| <b>SEROGAN</b><br><i>Dry-filled ampoules of 200 i.u.</i><br>Boxes of 3, 6 and 25<br><i>Dry-filled ampoules of 1000 i.u.</i><br>Boxes of 3, 6, 12 and 25 | Amenorrhœa ( <i>primary</i> )           | With Oestroform ( <i>q.v.</i> )                                                                                                | Serogan 1000 i.u. twice weekly for first two weeks after flow produced by Oestroform                                                         |
|                                                                                                                                                         | Amenorrhœa ( <i>secondary</i> )         | With Oestroform ( <i>q.v.</i> )                                                                                                | As in primary amenorrhœa (above) but in doses of 200 i.u.                                                                                    |
|                                                                                                                                                         | Uterine hypoplasia                      | With Oestroform ( <i>q.v.</i> )                                                                                                | Serogan 1000 i.u. once or twice weekly during first half of intermenstruum                                                                   |
|                                                                                                                                                         | Defective spermatogenesis               | Serogan 1000 i.u. twice weekly for six weeks                                                                                   | Phytoferol Capsules 2 or 3 daily                                                                                                             |
| <b>GONAN</b><br><i>Dry-filled ampoules of 100 i.u.</i><br>Boxes of 3, 6 and 25<br><i>Dry-filled ampoules of 500 i.u.</i><br>Boxes of 3, 6 and 25        | Cryptorchidism                          | Gonan 500 i.u. twice weekly if testes are in the abdomen. 500 i.u. once weekly if one or both testes are in the inguinal canal | Treatment not to be started before the eighth or ninth year. If descent is not produced in four to six months operation should be considered |
|                                                                                                                                                         | Dysmenorrhœa ( <i>congestive type</i> ) | Gonan 500 i.u. twice weekly for last two weeks of intermenstruum                                                               |                                                                                                                                              |



|                                    |                                                                                                                                                 |                                                                                                                                                                      |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eunuchoidism                       | Gonan 500 i.u. twice weekly for as long as treatment produces improvement                                                                       | Serogan 1000 i.u. weekly to correct defective spermatogenesis                                                                                                        |
|                                    | Frölich's syndrome                                                                                                                              |                                                                                                                                                                      |
|                                    | Migraine<br>( <i>premenstrual</i> )                                                                                                             |                                                                                                                                                                      |
|                                    | Abortion<br>( <i>missed</i> )                                                                                                                   | Quinine and posterior pituitary extract may be given in addition                                                                                                     |
| Amenorrhœa<br>( <i>primary</i> )   | Oestroform 50,000 i.b.u. every eight hours until evacuation of uterus takes place                                                               |                                                                                                                                                                      |
|                                    | Oestroform 50,000 i.b.u. twice weekly for first two weeks of an arbitrary cycle. Repeat during several cycles until menstruation is established | Serogan 1000 i.u. twice weekly during first half of intermenstruum when menstruation has appeared so as to reduce the tendency to relapse                            |
|                                    |                                                                                                                                                 |                                                                                                                                                                      |
|                                    | Oestroform 20,000 i.b.u. twice weekly during the first half of an arbitrary cycle or of the natural cycle if this can be calculated.            | Serogan 200 i.u. as for primary amenorrhœa. Instead of Oestroform, Dienœstrol B.D.H. 0.3 mg. or Stilboestrol B.D.H. 1 mg. may be given three times daily (see p. 11) |
| Amenorrhœa<br>( <i>secondary</i> ) |                                                                                                                                                 |                                                                                                                                                                      |
|                                    |                                                                                                                                                 |                                                                                                                                                                      |
|                                    |                                                                                                                                                 |                                                                                                                                                                      |
|                                    |                                                                                                                                                 |                                                                                                                                                                      |
| OESTROFORM                         |                                                                                                                                                 |                                                                                                                                                                      |
| <i>Ampoules of 1000 i.b.u.</i>     |                                                                                                                                                 |                                                                                                                                                                      |
| Boxes of 6 and 25                  |                                                                                                                                                 |                                                                                                                                                                      |
| <i>Ampoules of 10,000 i.b.u.</i>   |                                                                                                                                                 |                                                                                                                                                                      |
| Boxes of 6 and 25                  |                                                                                                                                                 |                                                                                                                                                                      |
| <i>Ampoules of 20,000 i.b.u.</i>   |                                                                                                                                                 |                                                                                                                                                                      |
| Boxes of 6 and 25                  |                                                                                                                                                 |                                                                                                                                                                      |
| <i>Ampoules of 50,000 i.b.u.</i>   |                                                                                                                                                 |                                                                                                                                                                      |
| Boxes of 1, 6 and 25               |                                                                                                                                                 |                                                                                                                                                                      |



| PREPARATION AND PACKINGS                                                | INDICATIONS                                     | PRIMARY TREATMENT                                                                                                                 | DOSAGE<br>SUPPLEMENTARY OR ALTERNATIVE TREATMENT                                                                                    |
|-------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| OESTROFORM—continued<br><i>Tablets of 1000 i.u.</i>                     | Arthritis<br>( <i>menopausal or endocrine</i> ) | Oestroform 50,000 i.b.u. twice weekly until there is some response; then gradually reduce dosage                                  |                                                                                                                                     |
| Bottles of 20, 40, 250, 500 and 1000                                    | Hypertension<br>( <i>hypo-ovarian</i> )         | Oestroform 20,000 i.b.u. twice weekly                                                                                             |                                                                                                                                     |
| <i>Tablets of 5000 i.u.</i><br><br>Bottles of 20, 40, 250, 500 and 1000 | Kraurosis vulvæ                                 | Oestroform 100,000 i.b.u. twice weekly for two or three weeks, reducing to 20,000 i.b.u. weekly when relief is obtained           | Oestroform pessaries, 1 each night, throughout the course of treatment by injection<br>Oestroform ointment may also be used locally |
| <i>Tablets of 10,000 i.u.</i>                                           | Labour<br>( <i>induction of</i> )               | Oestroform 20,000 i.b.u. to 50,000 i.b.u. every four hours                                                                        |                                                                                                                                     |
| Bottles of 20, 40, 250, 500 and 1000                                    | Menopause                                       | Oestroform 20,000 i.b.u. to 50,000 i.b.u. twice weekly until symptoms are reduced<br>Thereafter reduce dosage as much as possible | Oestroform tablets may be given, 30,000 i.u. decreasing to 3000 i.u. daily                                                          |
| <i>Ointment 1000 i.u. per grm.</i><br><br>Containers of 20 grm.         | Oligomenorrhœa                                  | As secondary amenorrhœa                                                                                                           |                                                                                                                                     |
| <i>Pessaries of 1000 i.u.</i><br><br>Boxes of 6 (adults')               | Pruritus vulvæ                                  | Oestroform 50,000 i.b.u. twice weekly for two or three weeks                                                                      | Oestroform pessaries nightly or night and morning                                                                                   |
| Boxes of 12 (children's)                                                | Vomiting of pregnancy<br>( <i>simple</i> )      | Oestroform 10,000 i.u. orally daily                                                                                               |                                                                                                                                     |
|                                                                         | Vulvo-vaginitis in children                     | Oestroform 1000 i.u. orally four times daily                                                                                      | Routine local and general treatment. Oestroform pessaries night and morning                                                         |

| PREPARATION AND PACKINGS                                                                                                                                                                               | INDICATIONS                                                  | DOSAGE                                                                                                               |                                                                                                              | SUPPLEMENTARY OR ALTERNATIVE TREATMENT                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <p><b>DIENCESTROL B.D.H.</b></p> <p><i>Tablets of 0.1 mg., 0.3 mg., 1 mg. and 5 mg.</i></p> <p>Bottles of 25, 100, 500 and 1000 of each strength</p>                                                   | <p>Amenorrhœa<br/>(secondary)</p>                            | <p>Diencestrol B.D.H.</p>                                                                                            | <p>Stilboestrol B.D.H.<br/>Stilboestrol-D.P. and<br/>Hexoestrol B.D.H.</p>                                   |                                                                                                    |
| <p>also</p> <p><b>STILBŒSTROL B.D.H.,<br/>STILBŒSTROL-D.P. and<br/>HEXŒSTROL B.D.H.</b> all<br/>available as follows :</p> <p><i>Ampoules of 1 mg. and 5 mg.</i></p> <p>Boxes of 6, 12, 25 and 100</p> | <p>Carcinoma<br/>(prostatic)</p>                             | <p>0.3 mg. three times daily during alternating fortnights (see Oestroform)</p>                                      | <p>1 mg. three times daily during alternating fortnights</p>                                                 | <p>Serogan (see Oestroform)</p>                                                                    |
|                                                                                                                                                                                                        | <p>Dysmenorrhœa<br/>(associated with uterine hypoplasia)</p> | <p>5 mg. to 15 mg. daily in divided doses until symptoms are reduced, then smaller doses as necessary</p>            | <p>5 mg. three or four times daily for as long as is necessary, continuing on reduced dosage if required</p> |                                                                                                    |
| <p><i>Tablets of 0.5 mg., 1 mg. and 5 mg.</i></p> <p>Bottles of 25, 100, 250, 500 and 1000</p>                                                                                                         | <p>Lactation<br/>(inhibition of)</p>                         | <p>0.3 mg. two or three times daily</p>                                                                              | <p>1 mg. or more</p>                                                                                         | <p>To be given during the first half of the intermenstruum</p>                                     |
|                                                                                                                                                                                                        | <p>Menopause and Pruritus vulvæ</p>                          | <p>0.6 mg. two or three times daily for two or three days and gradually decreasing doses over the next four days</p> | <p>1 mg. three or four times daily until the flow has ceased</p>                                             | <p>The dose should only be sufficient to give reasonable but not complete relief from symptoms</p> |



| PREPARATION AND PACKINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | INDICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PRIMARY TREATMENT | DOSAGE | SUPPLEMENTARY OR ALTERNATIVE TREATMENT |
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| PROGESTIN B.D.H.<br><br><i>Ampoules of 1 i.u. (1 mg.)</i><br><br>Boxes of 2, 6, 25 and 100<br><br><i>Ampoules of 2 i.u. (2 mg.)</i><br><br>Boxes of 2, 6, 25 and 100<br><br><i>Ampoules of 5 i.u. (5 mg.)</i><br><br>Boxes of 1, 3, 12, 25 and 100<br><br><i>Ampoules of 10 i.u. (10 mg.)</i><br><br>Boxes of 1, 3, 12 and 50<br><br>and<br><br>ETHISTERONE B.D.H.<br><br><i>Tablets of 5 mg.</i><br><br>Bottles of 25, 100 and 250<br><br><i>Tablets of 10 mg.</i><br><br>Bottles of 25 and 100 | Abortion<br><i>(habitual)</i><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br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|                   |        |                                        |

Alternatively 10 mg. of Ethisterone B.D.H.  
repeated in twenty-four hours if necessary

**TESTOSTERONE  
PROPIONATE B.D.H.**

*Ampoules of 5 mg.*

Boxes of 6 and 25

*Ampoules of 10 mg.*

Boxes of 3, 6 and 25

*Ampoules of 25 mg.*

Boxes of 1, 3, 12 and 25

also

**METHYL-TESTOSTERONE  
B.D.H.**

*Tablets of 5 mg.*

Bottles of 25, 100 and 250

| Angina pectoris                           | 25 mg. every second to fifth day                                                                 | Alternatively Methyl-testosterone B.D.H.<br>15 mg. or 20 mg. daily                                                      |
|-------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Climacteric (male) and Premature senility | Testosterone Propionate B.D.H. 5 mg. to 10 mg. twice weekly                                      | Alternatively Methyl-testosterone B.D.H.<br>15 mg. or 20 mg. daily                                                      |
| Eunuchism                                 | Testosterone Propionate B.D.H. 25 mg. twice weekly                                               | Alternatively Methyl-testosterone B.D.H.<br>15 mg. or 20 mg. daily                                                      |
| Eunuchoidism and Hypogonadism             | Testosterone Propionate B.D.H. 5 mg. to 10 mg. twice weekly                                      | Alternatively Methyl-testosterone B.D.H.<br>10 mg. or 15 mg. daily                                                      |
| Impotence                                 | Testosterone Propionate B.D.H. 10 mg. twice weekly                                               | Alternatively Methyl-testosterone B.D.H.<br>15 mg. daily                                                                |
| Mastodynia and Chronic mastitis           | Testosterone Propionate B.D.H. 10 mg. twice weekly                                               | Alternatively Methyl-testosterone B.D.H.<br>15 mg. to 25 mg. daily                                                      |
| Metrorrhagia                              | Testosterone Propionate B.D.H. 25 mg. a day on alternate days for three doses                    | Alternatively Methyl-testosterone B.D.H.<br>25 mg. to 35 mg. daily for three days or until the hæmorrhage is controlled |
| Prostatic hypertrophy (benign)            | Testosterone Propionate B.D.H. 10 mg. twice weekly for six weeks, followed by 5 mg. twice weekly |                                                                                                                         |

*N.B. It may be desirable to give Methyl-testosterone B.D.H. in preference to Testosterone Propionate B.D.H. to female patients as the masculinising properties of the methyl compound appear to be less than those of the propionate.*



**B.D.H.**

**THE BRITISH DRUG HOUSES LTD.**  
**LONDON N.1**